

## REMARKS

Claims remaining in the present application are Claims 1, 4 - 8, 11, and 13 - 22. Claims 1, 4 - 7, 13 - 15, 17 - 19, and 21 have been amended. No new matter has been added as a result of these amendments.

## CLAIM REJECTIONS

### 35 U.S.C. §112

Claim 20 is rejected under 35 U.S.C. §112, first paragraph, as containing newly claimed subject matter, "that a graphical user interface is not necessary," not supported in the specification.

### Claim 20

Claim 20, as previously presented, recites in part:

mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices and wherein a graphical user interface is not necessary;

Applicants respectfully submit that Claim 20 refers to an embodiment of the current invention, "wherein a graphical user interface is not necessary."

Applicants submit that the specification teaches an embodiment of the present invention, "wherein a graphical user interface is not necessary." As an example, in one embodiment, interaction is taught in the specification as being between the remote control and the tuner box, the tuner box and graphics card, and the graphics card and the personal computer. See e.g., page 4 lines 12 - 16 of the

specification. See also e.g. Figure 2, and Figure 3 of the specification. Interaction with a graphical user interface is not required at any step in the cited embodiment taught on page 4, lines 12 -16 of the specification. Neither is a graphical user interface shown in Figure 2 or Figure 3 of the specification.

Applicants respectfully submit that, the specification teaches an embodiment of the present invention, “wherein a graphical user interface is not necessary,” as claimed in Claim 20. Therefore, in light of the description of this embodiment of the present invention in the specification, Claim 20 is believed to overcome the 35 U.S.C. §112 rejection, and it is respectfully requested that the rejection be withdrawn.

35 U.S.C. §103

Claims 1, 4, and 14 - 18 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schindler et al. U.S. Patent No. 5,675,390 (hereinafter, Schindler) in view of Tsurumoto et al. U.S. Patent No. 4,817,203 (hereinafter, Tsurumoto). Claims 5 - 8, 11, 13, and 19 - 22 are rejected under 35 U.S.C. §103(a) as being unpatentable over Schindler-Tsurumoto, further in view of Bauersachs et al. Publication Number 2004/0025189 (hereinafter, Bauersachs).

CLAIM 1

Claim 1, as amended, recites in part:

receiving data signals from a single control device;  
accessing a look-up table having a plurality of mappings between each of  
the data signals from said single control device and an appropriate control  
function for each of the A/V devices;

Applicants submit that neither Schindler nor Tsurumoto, alone or in combination, teach or suggest, “accessing a look-up table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices,” as claimed. Therefore, Claim 1 is not rendered obvious by Schindler in view of Tsurumoto.

Applicants respectfully submit that Schindler does not teach or suggest, “accessing a look-up table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices.” The rejection alleges that, “Schindler shows a system for remotely controlling an AV device within a PC where the buttons on the remote control are mapped to predetermined key codes and upon receiving a signal from a remote control the signal is translated to control the operations of AV devices coupled to the PC.” Applicants respectfully assert that Schindler teaches “the keys on the remote are automatically mapped into the program selected.” See col. 18, lines 33 – 34. Schindler further teaches that, “programs, as used herein refer to computer application programs and television programs.” See col. 15, lines 50 – 51. In addition, Schindler teaches that the remote(s) and

the keys thereon are statically associated with applications. See e.g., col. 15, lines 13 - 65. However, Schindler does not teach or suggest “accessing a look-up table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices,” as claimed. Moreover, Applicants respectfully assert that Schindler does not inherently teach or suggest this claimed limitation.

Applicants respectfully assert that Tsurumoto, also like Schindler, fails to teach or suggest, “accessing a look-up table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices,” as claimed. The rejection alleges that, “Tsurumoto shows translating received data signals into particular control functions utilizing a look up table and controlling operation of A/V devices.” “Tsurumoto translates these codes based upon a second user input selection, namely a slide switch 18.” “This aids in simplifying the operation of the system since it reduces the labor for operating plural devices and permits the operation of plural A/V devices using a single remote controller.” Applicants respectfully assert that the cited reference from Tsurumoto does not teach these things. A careful reading shows Tsurumoto teaches that Item 18 is an Input Control Circuit, not a slide switch on the remote, as alleged. See e.g., Figures 2 and 3. The remote commander in the cited reference does not contain a slide switch, as alleged. Rather, it is manufactured with the slide switch omitted. See e.g., col. 3, lines 24 - 28. The remote taught in Tsurumoto cannot control a

plurality of A/V devices alone, as alleged. Rather, Tsurumoto teaches a remote that can only control the single device that is selected for operation, from a plurality of devices, via an external selection switch not located on the remote. See e.g., col. 3 lines 36 - 40.

Tsurumoto further teaches mapping the same codes to buttons having uses on multiple appliances through the use of the selection switch external to the remote. See e.g., col. 3 lines 29 - 35. Tsurumoto also teaches by inference that if a slide switch were used on the remote (as alleged), buttons having uses on multiple appliances would require different codes for the different devices the buttons are capable of controlling. See e.g. col. 3 lines 26 - 35. However, Tsurumoto does not teach or suggest, “accessing a look-up table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices,” as claimed. Moreover, Applicants respectfully assert that Tsurumoto does not inherently teach or suggest this claimed limitation.

Therefore, the combination of Schindler and Tsurumoto fails to teach or suggest, “accessing a look-up table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices,” as claimed.

Applicants further assert that it would not have been obvious to one of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Schindler with the teachings of Tsurumoto to arrive at the claimed limitation of "accessing a look-up table having a plurality of mappings between each of the data signals from said single control device and an appropriate control function for each of the A/V devices," because neither reference suggests this claim limitation.

For the foregoing reasons, Applicants respectfully assert that Claim 1 is allowable over the combination of Schindler and Tsurumoto.

#### CLAIMS 14 & 18

Claims 14 and 18 recite in part:

a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V devices and a second set of buttons control operation as a function of the selected A/V device;

Applicants submit that neither Schindler nor Tsurumoto, alone or in combination, teach or suggest, "a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V devices and a second set of buttons control operation as a function of the selected A/V device" as claimed. Therefore, Claims 14 and 18 are not rendered obvious by Schindler in view of Tsurumoto.

Applicants respectfully submit that Schindler does not teach or suggest, “a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V devices and a second set of buttons control operation as a function of the selected A/V device,” as claimed. Applicants respectfully assert that Schindler teaches away from this claimed limitation. Schindler teaches, “when the cursor is used to select a program, it [the curser] becomes the primary controller for the program.” See col. 18, lines 32 - 33. Schindler also teaches that it requires the use of a graphical user interface and mouse movements of a cursor via a track ball on the remote or via a touchpad on the keyboard. See e.g., Figure 13; item 910 of Figure 9; item 1010 of Figure 10; and col. 17, line 56 through col. 18, line 56. See also, col. 13 line 28 through col. 14 line 46. In addition, Schindler teaches, “the keys on the remote are automatically mapped into the program selected.” See col. 18, lines 33 - 34. Schindler further teaches that, “programs, as used herein refer to computer application programs and television programs.” See col. 15, lines 50 - 51. Schindler also teaches that the remote(s) and the keys thereon are statically associated with applications. See e.g., col. 15, lines 13 - 65. However, Schindler does not teach or suggest, “a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V devices and a second set of buttons control operation as a function of the selected A/V device,” as claimed. Moreover, Applicants respectfully assert that Schindler does not inherently teach or suggest this claimed limitation.

Applicants respectfully assert that Tsurumoto fails to teach or suggest, “a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V devices and a second set of buttons control operation as a function of the selected A/V device,” as claimed. Tsurumoto teaches away from this claimed limitation by teaching a remote that can only control the single device that is selected for operation, from a plurality of devices, via an external selection switch not located on the remote. See e.g., col. 3 lines 36 - 40. Tsurumoto further teaches mapping the same codes to buttons having uses on multiple appliances through the use of the selection switch external to the remote. See e.g., col. 3 lines 29 - 35. Tsurumoto also teaches by inference that if a slide switch were used on the remote (as alleged), buttons having uses on multiple appliances would require different codes for the different devices the buttons are capable of controlling. See e.g. col. 3 lines 26 - 35. However, Tsurumoto does not teach or suggest, “a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V devices and a second set of buttons control operation as a function of the selected A/V device,” as claimed. Moreover, Applicants respectfully assert that Tsurumoto does not inherently teach or suggest this claimed limitation.

Therefore, the combination of Schindler and Tsurumoto fails to teach or suggest, “a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V



devices and a second set of buttons control operation as a function of the selected A/V device,” as claimed.

Applicants further assert that it would not have been obvious to one of ordinary skill in the art at the time of Applicants’ invention to combine the teachings of Schindler with the teachings of Tsurumoto to arrive at the claimed limitation of “a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V devices and a second set of buttons control operation as a function of the selected A/V device,” because neither reference suggests this claim limitation.

For the foregoing reasons, Applicants respectfully assert that Claims 14 and 18 are allowable over the combination of Schindler and Tsurumoto.

#### CLAIM 5

Claim 5 recites in part:

a single remote control device with selectable buttons for transmitting data signals wirelessly to access control of the plurality of A/V devices;

a connection hardware, coupling the plurality of A/V devices and the PC , for translating the data signals to appropriate control functions, wherein the selectable buttons are automatically associated with the appropriate control functions for a particular A/V device; and

a PC for controlling the plurality of A/V devices utilizing the appropriate control functions.

Applicants respectfully submit that neither Schindler, nor Tsurumoto, nor Bauersachs alone, or in combination, teach or suggest, a connection hardware for translating data signals to appropriate control functions, wherein the selectable buttons of a single remote are automatically associated with the appropriate control functions for a particular A/V device, as claimed.

Applicants respectfully submit that Schindler does not teach or suggest, a connection hardware for translating data signals to appropriate control functions, wherein the selectable buttons of a single remote are automatically associated with the appropriate control functions for a particular A/V device, as claimed. Applicants respectfully assert that Schindler teaches away from the invention claimed in Claim 5. Schindler teaches, “when the cursor is used to select a program, it [the curser] becomes the primary controller for the program.” See col. 18, lines 32 - 33. Schindler also teaches that it requires the use of a graphical user interface and mouse movements of a cursor via a track ball on the remote or via a touchpad on the keyboard. See e.g., Figure 13; item 910 of Figure 9; item 1010 of Figure 10; and col. 17, line 56 through col. 18, line 56. See also, col. 13 line 28 through col. 14 line 46. In addition, Schindler teaches, “the keys on the remote are automatically mapped into the program selected.” See col. 18, lines 33 - 34. Schindler further teaches that, “programs, as used herein refer to computer application programs and television programs.” See col. 15, lines 50 - 51. Schindler also teaches that the remote(s) and the keys thereon are statically associated with applications. See e.g., col. 15, lines 13 - 65.

However, Schindler does not teach or suggest, a connection hardware for translating data signals to appropriate control functions, wherein the selectable buttons of a single remote are automatically associated with the appropriate control functions for a particular A/V device, as claimed. Moreover, Applicants respectfully assert that Schindler does not inherently teach or suggest these claimed limitations.

Applicants respectfully submit that the cited combination of Schindler and Tsurumoto fails to teach or suggest, a connection hardware for translating data signals to appropriate control functions, wherein the selectable buttons of a single remote are automatically associated with the appropriate control functions for a particular A/V device, as claimed. Schindler as previously explained, does not teach these claimed limitations. Tsurumoto teaches away from these claimed limitations, by teaching a remote that can only control the single device that is selected for operation, from a plurality of devices, via an external selection switch not located on the remote. See e.g., col. 3 lines 36 - 40. Tsurumoto further teaches mapping the same codes to buttons having uses on multiple appliances through the use of the selection switch external to the remote. See e.g., col. 3 lines 29 - 35. Tsurumoto also teaches by inference that if a slide switch were used on the remote (as alleged), buttons having uses on multiple appliances would require different codes for the different devices the buttons are capable of controlling. See e.g. col. 3 lines 26 - 35. Tsurumoto teaches a connection hardware that couples a plurality of A/V devices without

the use of a PC. See e.g., Figure 1. Tsurumoto also teaches a connection hardware for translating the signals from the buttons on a remote into control signals, based on an additional selection made with a switch external to the remote. See e.g., col. 3 lines 36 - 52. However, Tsurumoto is silent with respect to: a connection hardware for translating data signals to appropriate control functions, wherein the selectable buttons of a single remote are automatically associated with the appropriate control functions for a particular A/V device, as claimed. Moreover, Applicants respectfully assert that Tsurumoto does not inherently teach or suggest these claimed limitations.

Applicants respectfully submit that the cited combination of Schindler-Tsurumoto in view of Bauersachs fails to teach or suggest, a connection hardware for translating data signals to appropriate control functions, wherein the selectable buttons of a single remote are automatically associated with the appropriate control functions for a particular A/V device, as claimed. Schindler and Tsurumoto, as previously explained, fail to teach these limitations. Bauersachs teaches a remote control, boxes connected to a television and a PC, and cables containing infrared transceivers connected to these boxes. See e.g., paragraphs 92, 103, 104, and 105. Bauersachs teaches away from the claimed limitations, by teaching a box that receives signals from a remote and then forwards the signals to a PC for interpretation. See e.g., paragraph 144. However, Bauersachs is silent with respect to: a connection hardware for translating data signals to appropriate control functions, wherein the selectable

buttons of a single remote are automatically associated with the appropriate control functions for a particular A/V device, as claimed. Moreover, Applicants respectfully assert that Bauersachs does not inherently teach or suggest these claimed limitations.

Therefore, the combination of Schindler - Tsurumoto further yet in view of Bauersachs fails to teach or suggest, a connection hardware for translating data signals to appropriate control functions, wherein the selectable buttons of a single remote are automatically associated with the appropriate control functions for a particular A/V device, as claimed. Moreover, Applicants respectfully submit that the combination of Schindler - Tsurumoto - Bauersachs does not inherently teach or suggest these claimed limitations. Applicants further assert that it would not have been obvious to one of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Schindler and Tsurumoto and Bauersachs to arrive at the claimed limitations.

For the foregoing reasons, Applicants respectfully assert that Claim 5 is allowable over the combination of Schindler - Tsurumoto - Bauersachs.

### CLAIM 13

Claim 13, as amended, recites in part:

determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device;

Applicants respectfully submit that neither Schindler, nor Tsurumoto, nor Bauersachs alone, or in combination, teach or suggest, “determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device,” as claimed.

Applicants respectfully submit that Schindler does not teach or suggest, “determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device,” as claimed. Applicants respectfully assert that Schindler teaches away from the invention claimed in Claim 13. Schindler teaches, “when the cursor is used to select a program, it [the curser] becomes the primary controller for the program.” See col. 18, lines 32 - 33. In addition, Schindler teaches, “the keys on the remote are automatically mapped into the program selected.” See col. 18, lines 33 - 34. Schindler further teaches that, “programs, as used herein refer to computer application programs and television programs.” See col. 15, lines 50 - 51. Schindler also teaches that the remote(s) and the keys thereon are statically associated with applications. See e.g., col. 15, lines 13 - 65. However, Schindler does not teach or suggest, “determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device,” as claimed. Moreover,

Applicants respectfully assert that Schindler does not inherently teach or suggest this claimed limitation.

Applicants respectfully submit that the cited combination of Schindler and Tsurumoto fails to teach or suggest, “determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device,” as claimed. Schindler as previously explained, does not teach this claimed limitation. Tsurumoto teaches away from the claimed limitation, by teaching a remote that can only control the single device that is selected for operation, from a plurality of devices, via an external selection switch not located on the remote. See e.g., col. 3 lines 36 - 40. Tsurumoto further teaches mapping the same codes to buttons having uses on multiple appliances through the use of the selection switch external to the remote. See e.g., col. 3 lines 29 - 35. Tsurumoto also teaches by inference that if a slide switch were used on the remote (as alleged), buttons having uses on multiple appliances would require different codes for the different devices the buttons are capable of controlling. See e.g. col. 3 lines 26 - 35. Tsurumoto’s teachings require two actions to send a useable control signal, either with both actions being on the remote, or one action being on the remote and another action being external to the remote. However, Tsurumoto is silent with respect to “determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device,”

as claimed. Moreover, Applicants respectfully assert that Tsurumoto does not inherently teach or suggest this claimed limitation.

Applicants respectfully submit that the cited combination of Schindler-Tsurumoto further yet in view of Bauersachs fails to teach or suggest, “determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device,” as claimed. Schindler and Tsurumoto as previously explained, fail to teach these limitations. Bauersachs teaches a remote control, boxes connected to a television and a PC, and cables containing infrared transceivers connected to these boxes. See e.g., paragraphs 92, 103, 104, and 105. Bauersachs also teaches a box that receives signals from a remote and then forwards the signals to a PC for interpretation. See e.g., paragraph 144. However, Bauersachs is silent with respect to, “determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V device,” as claimed. Moreover, Applicants respectfully assert that Bauersachs does not inherently teach or suggest this claimed limitation.

Therefore, the combination of Schindler - Tsurumoto in view of Bauersachs fails to teach or suggest, “determining automatically a control function for a particular A/V device associated with the data signal based only on the activated at least one of the plurality of buttons and the particular A/V



device,” as claimed. Moreover, Applicants respectfully submit that the combination of Schindler – Tsurumoto – Bauersachs does not inherently teach or suggest this claimed limitation. Applicants further assert that it would not have been obvious to one of ordinary skill in the art at the time of Applicants’ invention to combine the teachings of Schindler and Tsurumoto and Bauersachs to arrive at the claimed limitation.

For the foregoing reasons, Applicants respectfully assert that Claim 13 is allowable over the combination of Schindler – Tsurumoto – Bauersachs.

#### CLAIMS 19 & 21

Claim 19 recites, in part:

a graphics board for automatically translating the data signals to appropriate control functions for selecting and controlling operation of the plurality of A/V devices utilizing a look-up table wherein a first set of the selectable buttons are mapped to select one or more A/V devices and a second set of the selectable buttons are mapped to control operation as a function of the selected one or more A/V devices.

Claim 21, similarly recites, in part:

the PC having a graphics board including a button mapping software for automatically translating the data signals to appropriate control functions and a software driver for providing information for controlling the plurality of A/V devices according to the appropriate control function, wherein a first set of the data signals are mapped to select one or more A/V devices and a second set of the data signals are mapped to control operation of the selected one or more A/V devices.

Applicants respectfully submit that neither Schindler, nor Tsurumoto, nor Bauersachs alone, or in combination, teach or suggest, a graphics board for translating control signals from a remote and selecting and controlling a plurality of A/V devices, as claimed. Therefore, Claims 19 and 21 are not rendered obvious by the combination of Schindler-Tsurumoto in view of Bauersachs.

Applicants respectfully submit that Schindler does not teach or suggest, a graphics board for translating control signals from a remote and selecting and controlling a plurality of A/V devices, as claimed. Applicants respectfully assert that Schindler teaches away from the invention as claimed in Claims 19 and 21. Schindler teaches using a PC or a set top box to control application programs. See e.g., col. 20 line 65 through col. 21 line 3. Schindler further teaches that, “programs, as used herein refer to computer application programs and television programs.” See col. 15, lines 50 – 51. Schindler also teaches that the remote(s) and the keys thereon are statically associated with applications, rather than with A/V devices. See e.g., col. 15, lines 13 – 65. However, Schindler does not teach or suggest a graphics board for translating control signals from a remote and selecting and controlling a plurality of A/V devices, as claimed. Moreover, Applicants respectfully assert that Schindler does not inherently teach or suggest this claimed limitation.

Applicants respectfully submit that the cited combination of Schindler and Tsurumoto fails to teach or suggest, a graphics board for translating control signals from a remote and selecting and controlling a plurality of A/V devices, as claimed. Schindler as previously explained, does not teach this claimed limitation. Tsurumoto teaches a remote that interfaces with a television. See e.g., Figure 1. Tsurumoto also teaches a television that contains several circuits to translate the codes from the remote, and other circuits to output control signals to A/V devices external to the television. See e.g., Figure 1 and col. 3 lines 36 - 52. However, Tsurumoto is silent with respect to a graphics board for translating control signals from a remote and selecting and controlling a plurality of A/V devices, as claimed. Moreover, Applicants respectfully assert that Tsurumoto does not inherently teach or suggest this claimed limitation.

Applicants respectfully submit that the cited combination of Schindler-Tsurumoto further yet in view of Bauersachs fails to teach or suggest, a graphics board for translating control signals from a remote and selecting and controlling a plurality of A/V devices, as claimed. Schindler and Tsurumoto as previously explained, fail to teach these limitations. Bauersachs teaches a remote control, boxes connected to a television and a PC, and cables containing infrared transceivers connected to these boxes. See e.g., paragraphs 92, 103, 104, and 105. Bauersachs also teaches a box that receives signals from a remote and then forwards the signals to a PC for interpretation. See e.g., paragraph 144. However, Bauersachs is silent with respect to, a graphics board for translating

control signals from a remote and selecting and controlling a plurality of A/V devices, as claimed. Moreover, Applicants respectfully assert that Bauersachs does not inherently teach or suggest this claimed limitation.

Therefore, the combination of Schindler - Tsurumoto in view of Bauersachs fails to teach or suggest, a graphics board for translating control signals from a remote and selecting and controlling a plurality of A/V devices, as claimed. Moreover, Applicants respectfully submit that the combination of Schindler - Tsurumoto - Bauersachs does not inherently teach or suggest this claimed limitation. Applicants further assert that it would not have been obvious to one of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Schindler and Tsurumoto and Bauersachs to arrive at the claimed limitation.

For the foregoing reasons, Applicants respectfully assert that Claims 19 and 21 are allowable over the combination of Schindler - Tsurumoto - Bauersachs.

#### CLAIM 20

Claim 20, recites in part:

mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices and wherein a graphical user interface is not necessary;

Applicants respectfully submit that neither Schindler, nor Tsurumoto, nor Bauersachs alone, or in combination, teach or suggest, “mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices,” as claimed. Therefore, Claim 20 is not rendered obvious by Schindler in view of Tsurumoto.

Applicants respectfully submit that Schindler does not teach or suggest, “mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices,” as claimed. Applicants respectfully assert that Schindler teaches away from the invention claimed in 20. Schindler teaches, “when the cursor is used to select a program, it [the curser] becomes the primary controller for the program.” See col. 18, lines 32 - 33. Schindler also teaches that it requires the use of a graphical user interface and mouse movements of a cursor via a track ball on the remote or via a touchpad on the keyboard. See e.g., Figure 13; item 910 of Figure 9; item 1010 of Figure 10; and col. 17, line 56 through col. 18, line 56. See also, col. 13 line 28 through col. 14 line 46. In addition, Schindler teaches, “the keys on the remote are automatically mapped into the program selected.” See col. 18, lines 33 - 34. Schindler further teaches that, “programs, as used herein refer to computer application programs and television programs.” See col. 15, lines 50 - 51. Schindler also teaches that the remote(s) and the keys thereon are statically

associated with applications. See e.g., col. 15, lines 13 - 65. However, Schindler does not teach or suggest, “mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices,” as claimed. Moreover, Applicants respectfully assert that Schindler does not inherently teach or suggest this claimed limitation.

Applicants respectfully submit that the cited combination of Schindler and Tsurumoto fails to teach or suggest, “mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices,” as claimed. Schindler as previously explained, does not teach this claimed limitation. Tsurumoto teaches away from this claimed limitation, by teaching a remote that can only control the single device that is selected for operation, from a plurality of devices, via an external selection switch not located on the remote. See e.g., col. 3 lines 36 - 40. Tsurumoto further teaches away, by teaching mapping the same codes to buttons having uses on multiple appliances through the use of the selection switch external to the remote. See e.g., col. 3 lines 29 - 35. Tsurumoto also teaches away from the claimed limitation, by teaching by inference that if a slide switch were used on the remote (as alleged), buttons having uses on multiple appliances would require different codes for the different devices the buttons are capable of controlling. See e.g. col. 3 lines 26 - 35. Tsurumoto teaches by inference that

part of the mapping is done in the remote with the selector switch, and part of the mapping in the receiving device. See e.g. col. 3 lines 26 - 35. However, Tsurumoto does not teach or suggest, “mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices,” as claimed. Moreover, Applicants respectfully assert that Tsurumoto does not inherently teach or suggest this claimed limitation.

Applicants respectfully submit that the cited combination of Schindler-Tsurumoto further yet in view of Bauersachs fails to teach or suggest, “a mapping of each button on a remote control device to predetermined key codes, wherein a first set of buttons select operation of one or more A/V devices and a second set of buttons control operation as a function of the selected A/V device,” as claimed. Schindler and Tsurumoto as previously explained, fail to teach these limitations. Bauersachs teaches a remote control, boxes connected to a television and a PC, and cables containing infrared transceivers connected to these boxes. See e.g., paragraphs 92, 103, 104, and 105. Bauersachs also teaches a box that receives signals from a remote and then forwards the signals to a PC for interpretation. See e.g., paragraph 144. Bauersachs additionally teaches a system that can learn commands from other remote control devices. See e.g., paragraph 104. However, Bauersachs is silent with respect to, “mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set

of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices,” as claimed. Moreover, Applicants respectfully assert that Bauersachs does not inherently teach or suggest this claimed limitation.

Therefore, the combination of Schindler - Tsurumoto in view of Bauersachs fails to teach or suggest, “mapping each button on a remote control device to predetermined key codes in a look-up table, wherein a first set of buttons select one or more A/V devices and a second set of buttons control operation of each of the selected A/V devices,” as claimed. Moreover, Applicants respectfully submit that the combination of Schindler - Tsurumoto - Bauersachs does not inherently teach or suggest this claimed limitation. Applicants further assert that it would not have been obvious to one of ordinary skill in the art at the time of Applicants’ invention to combine the teachings of Schindler and Tsurumoto and Bauersachs to arrive at the claimed limitation.

For the foregoing reasons, Applicants respectfully assert that Claim 20 is allowable over the combination of Schindler-Tsurumoto-Bauersachs.

#### Dependent Claims

Claims 4, 6 - 8, 11, 15 - 17, and 22 depend from Claims 1, 5, 14, 19, and 21 which are respectfully believed to be allowable for reasons contained herein. By



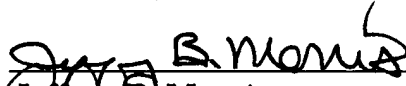
virtue of their dependency, Claims 4, 6 - 8, 11, 15 - 17, and 22 are respectfully believed to be allowable.

CONCLUSION

Based on the arguments and amendments presented above, it is respectfully submitted that Claims 1, 4 - 8, 11, and 13 - 22 overcome the rejections of record and, therefore, allowance of Claims 1, 4 - 8, 11, and 13 - 22 is respectfully solicited. Should the Examiner have a question regarding the instant amendments and response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,  
WAGNER, MURABITO & HAO LLP

Dated: 24 Feb, 2005

  
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